

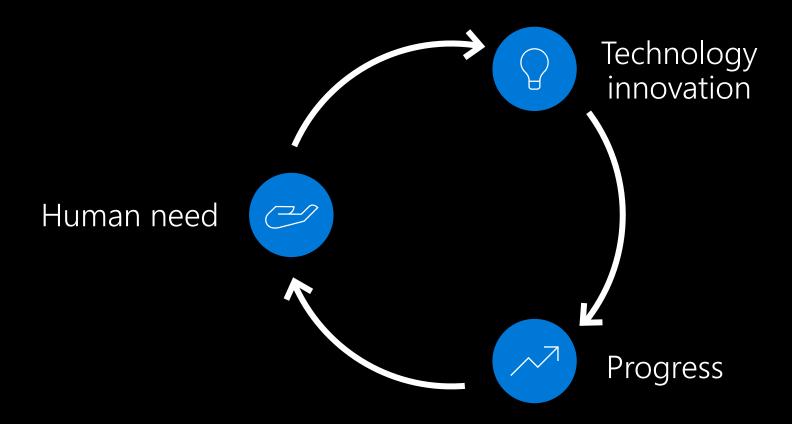
# Al for Good







# Amplifying human ingenuity







**Printing press** 

1439





Automobile

1885





Internet

1980s







Innovation

**Progress** 







Internet 1980s



4000 BCE





Steam engine 1698



**Electric light** 1802







1885

Automobile

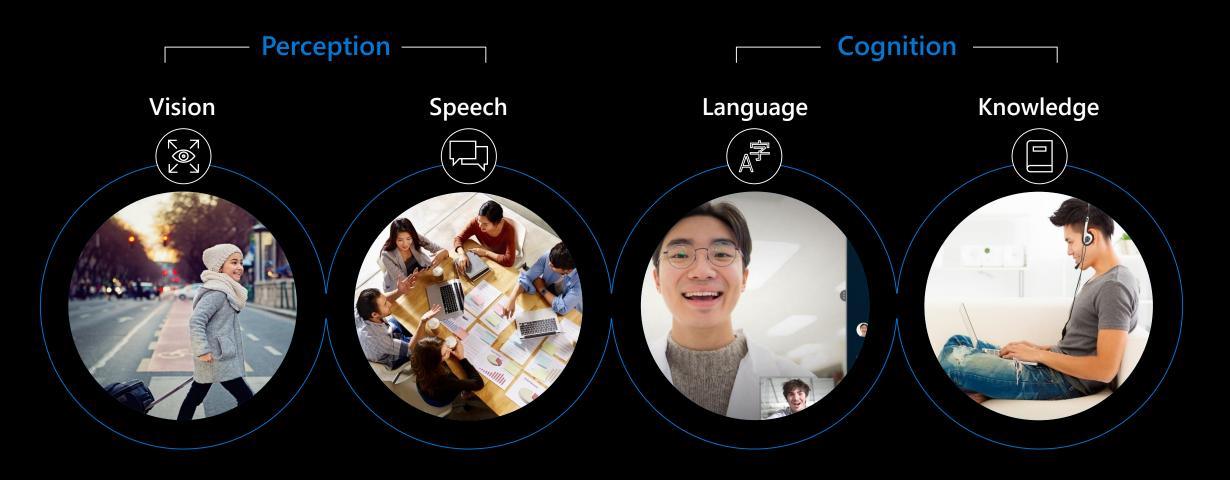
Need

Innovation

#### What is AI?

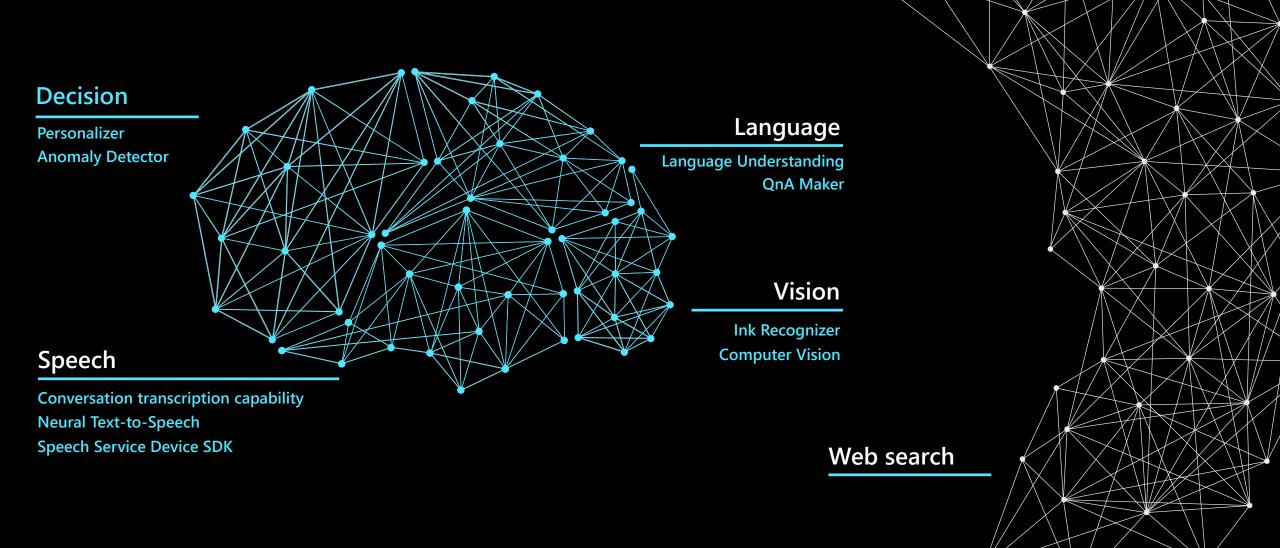
Technology that can perceive, learn, and reason to extend the capabilities of people and organizations

#### Computers understanding the world



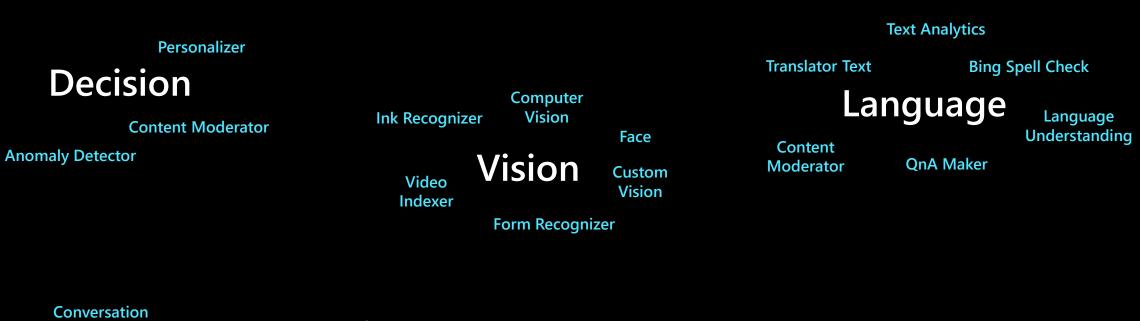
#### **Azure Cognitive Services**

#### Redefining Artificial Intelligence



#### **Azure Cognitive Services**

#### The most comprehensive pre-trained AI



transcription capability

Custom Speech

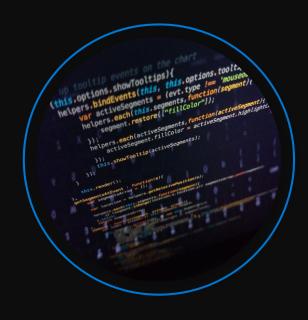
Speech Speech transcription

Text-to-Speech

Neural Text-to-Speech

**Bing Custom Bing Entity Search** Bing Search Video Search Bing **Bing News** Web search **Local Business** Search Search **Bing Web** Search **Bing Autosuggest Bing Image Search Bing Visual Search** 

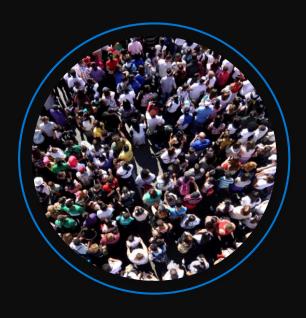
#### Microsoft Al vision



Empower developers to innovate



Empower organizations to transform industries



Empower people to transform society

#### Al for Good









#### **AI for Accessibility**

\$25 million commitment to help everyone - including people with disabilities in their daily life, employment, and communication and connection

#### Al for Earth

\$50 million commitment focused on agriculture, biodiversity, climate change and water

#### **Al for Humanitarian Action**

\$40 million commitment to help nonprofit and humanitarian organizations with disaster response, refugees and displaced people, human rights, and needs of children

#### **Al for Cultural Heritage**

\$10 million commitment to empower people and organizations focused on the preservation and enrichment of cultural heritage

#### Al for Accessibility

#### **Employment**

Use AI to help people develop additional skills in the workplace and evolve the culture around inclusive hiring

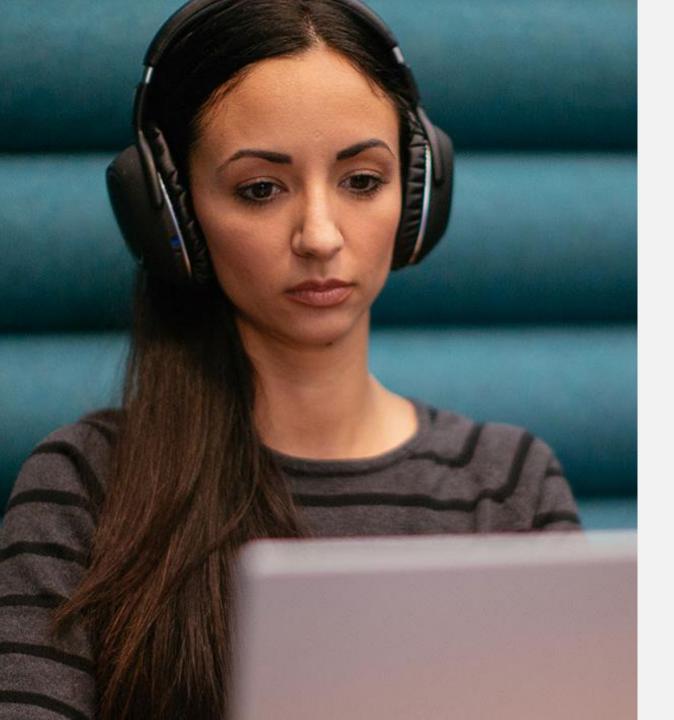
#### Daily life

Build modern solutions for people with disabilities by making software and devices smarter, more contextually relevant, and improve daily life

#### **Communication and connection**

Modernize communication options for people, regardless of how they listen, speak, or write





#### Featured projects

#### Seeing Al

A free app designed for the low vision community, this project harnesses the power of AI to describe people, text, and objects

#### Helpicto

Equadex partnered with Microsoft to develop a pictogram app for children who are nonverbal by using speech-to-text to generate sentences and categorize keywords

#### **Microsoft Translator**

RIT is using custom speech models and Microsoft Translator to improve accuracy of real-time captions for students who are deaf or hard-of-hearing

### Featured project: Seeing Al

# Turning the visual world into an audible experience

Designed for the blind and low vision community, this research project harnesses the power of AI to describe people, text, and objects.





#### Al for Earth

Four areas that are vital in building a sustainable future

#### Agriculture

Feed the growing world population

#### Water

Conserve and protect water sources

#### **Biodiversity**

Monitor and protect species from extinction

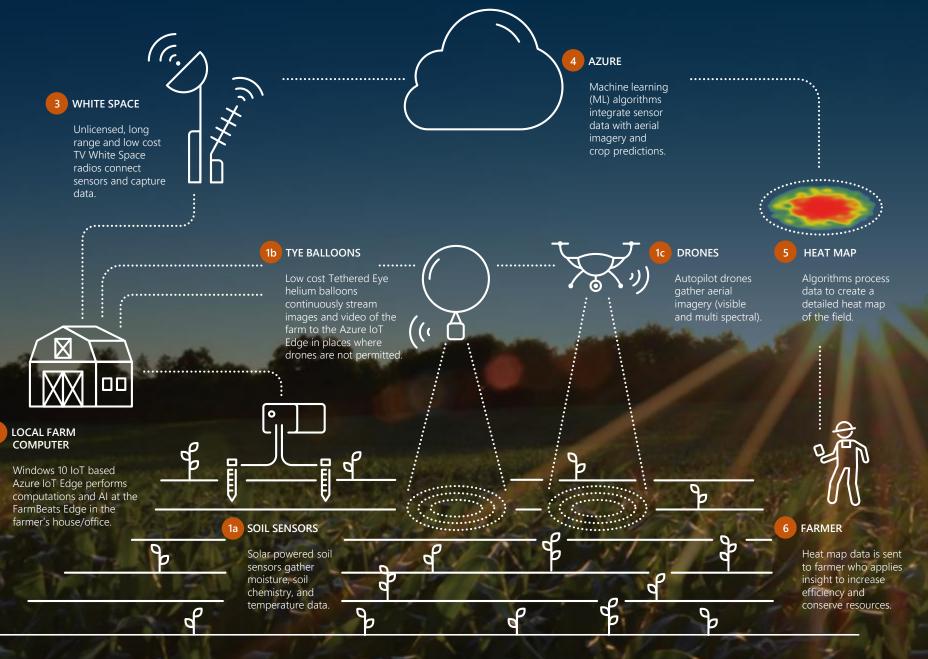
#### Climate change

Reduce climate change impact on communities



#### FarmBeats

FarmBeats provides farmers with access to Microsoft Azure and Al technologies, enabling data driven decisions to help improve agricultural yield, lower overall costs, and reduce the environmental impact of agricultural production.



#### Land Cover Mapping

Land cover maps help us to visualize everything that covers the earth, including natural phenomena and human made surfaces. Armed with highly accurate spatial data, people and organizations can precisely understand the current landscape and track changes that occur over time, enabling them to better address environmental challenges and develop more climate resilient communities.



3 MICROSOFT AZURE

Azure stores all of this data for ready access by Al systems.



4 MODEL TRAINING

Batch Al leverages hundreds of GPUs to train the model.



5 MODEL DEVELOPMENT

.......

The GeoAl DSVM expedites the processing of new imagery, providing rapid mapping results.

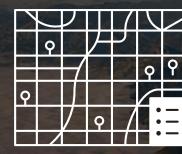
2 REMOTE SENSING

Imagery of the studied area is collected from platforms like drones, airplanes, and satellites.



1 LAND AREA

A land area is identified to study.



6 INSIGHT

Researchers are able to review land cover in great detail, providing insights to monitor climate change, understand the impacts of urbanization, and better plan for natural disasters.

# Al for Humanitarian Action

#### Disaster response

Support resiliency, response and recovery programs for those affected by humanitarian emergencies

#### Needs of children

Ensure the safety and wellbeing of children

#### Refugees and displaced people

Enable scalable collaboration in service of the approx. 65 million displaced people, including refugees

#### **Human rights**

Accelerate breakthrough solutions to help monitor, detect and prevent human rights abuses





#### **Featured projects**

Disaster response







Needs of children





Refugees and displaced children







**Human rights** 



#### Featured project: Needs of children

Operation Smile will use Al to accelerate evaluation of surgeries.

In partnership with Operation Smile, we aim to improve surgical outcomes across the developing world.



## Al for Cultural Heritage

#### People

Celebrating the people who have made significant impact throughout history

#### **Places**

Using digital tools to preserve important monuments and sites for future generation

#### Languages

Engaging with communities around the world for language preservation

#### **Historical artifacts**

Creating ways for collections and archives to be more easily accessed and enjoyed





#### Featured projects

#### **Nobel Foundation**

Using AI to illuminate the discoveries and contributions of female Nobel Prize-winners

#### **Mont-Saint-Michel**

Bringing to life the historic Mont-Saint-Michel relief map to create an immersive experience using Al and mixed reality

#### **Otomi and Maya Translator**

Leveraging Microsoft Translator to help preserve two endangered languages in Mexico, Yucatec Maya and Querétaro Otomi

#### The Met Open Access

Exploring ways in which AI can help The Metropolitan Museum of Art's Open Access Collection become more accessible to global audiences

# Microsoft Al





# Scan here to learn more about Al for Good

Or Go To: https://aka.ms/AA6l8tl